



Actiontec Q1000 Teardown

Actiontec Q1000 Modem Teardown on August 23, 2013.

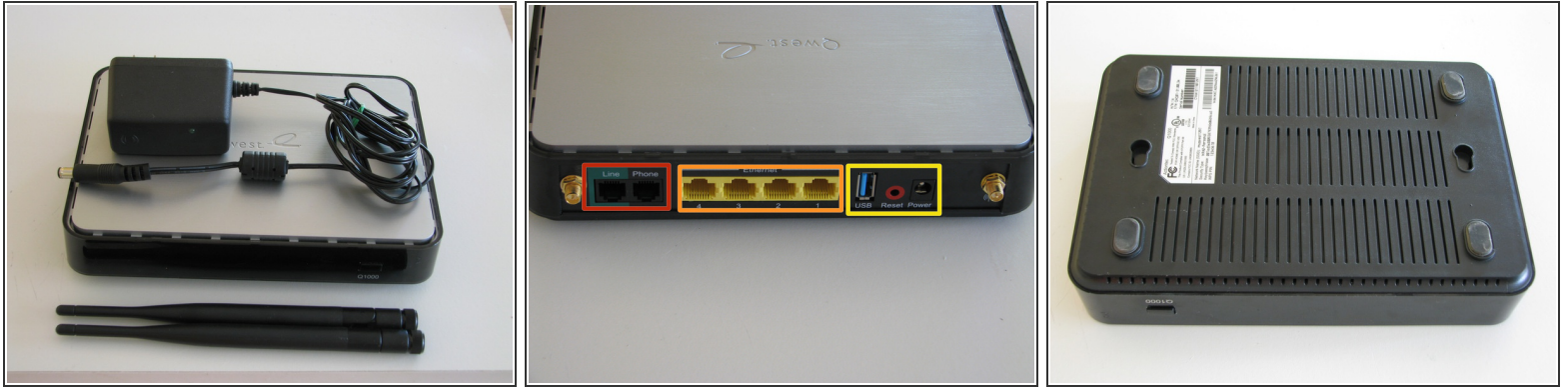
Written By: jrw01



INTRODUCTION

This teardown is a working [Actiontec Q1000 Modem](#), sold by Qwest as a Qwest Q1000.

Step 1 — Actiontec Q1000 Teardown



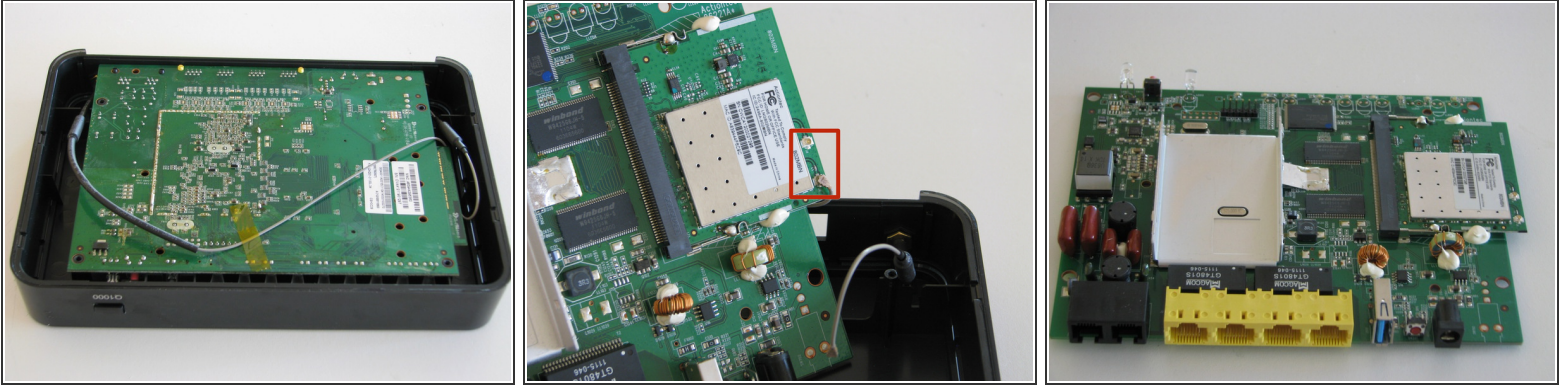
- The Qwest Q1000 modem, made by Actiontec.
- Port side with antennas detached.
 - DSL and Phone in ports
 - 4 Ethernet ports
 - USB port, reset button, and power jack
- Not a screw in sight.

Step 2



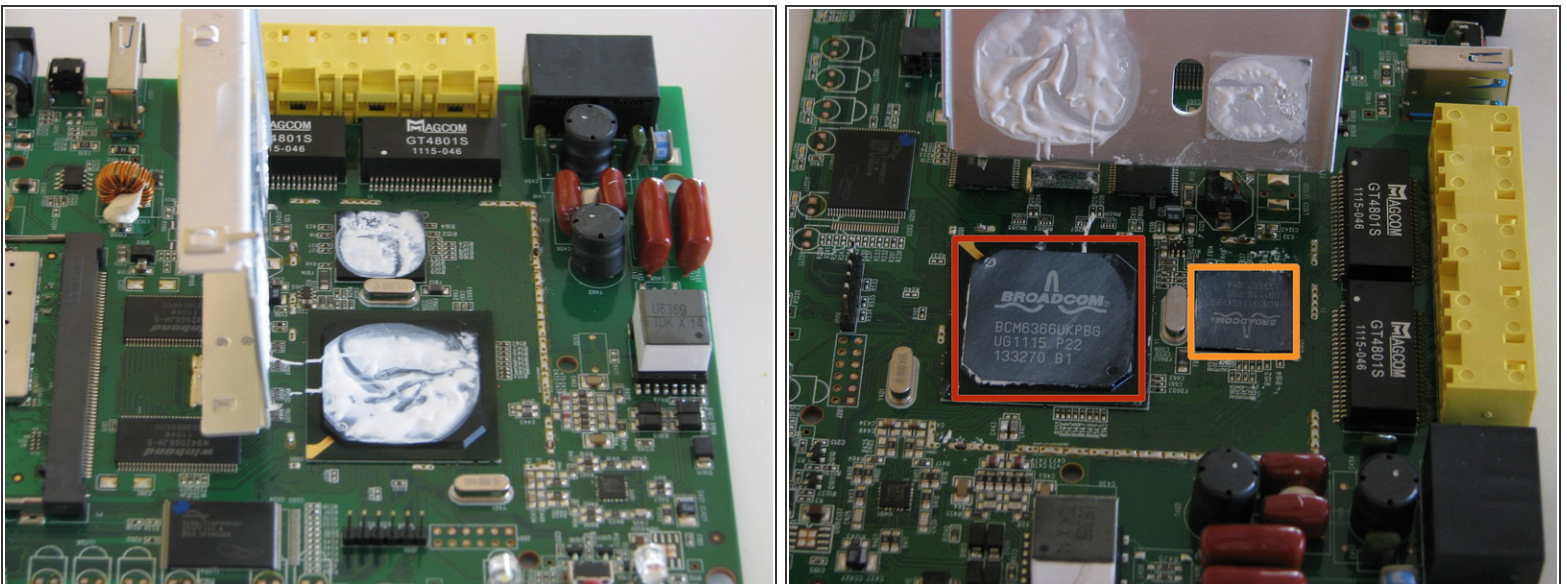
- As usual, the rubber feet are hiding screws!

Step 3



- Nothing really to see here...
- Remove the 2 antenna wires from the wifi card. One is also taped to the back of the board.
- The circuit board is finally free!

Step 4



- Looks like someone was generous with the thermal paste.
- Underneath the cover:
 - Broadcom BCM6366
 - Broadcom BCM53115

Step 5



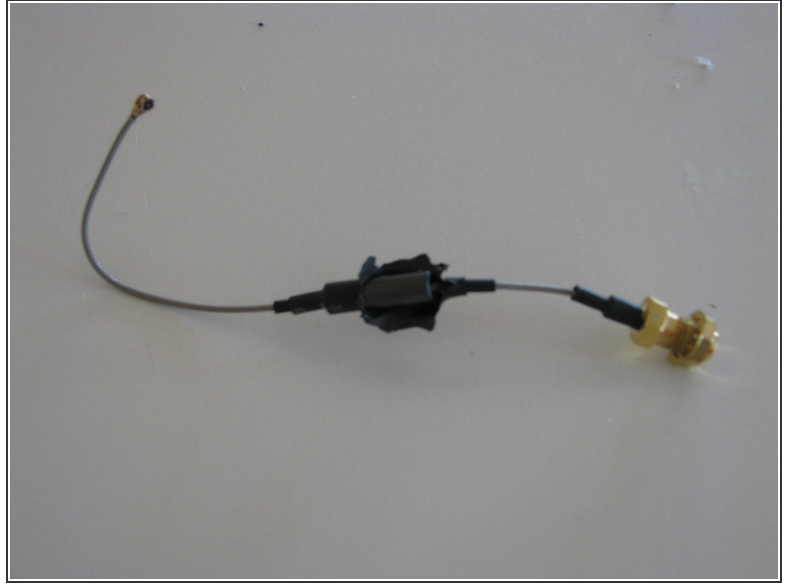
- The Wi-Fi card lets down its shield...
- The chip is a BCM4322.

Step 6



- The inside of the top case.
- The antenna connectors are screwed onto the case.

Step 7



- The antenna connectors have gold-plated coax connectors and standard Wi-Fi antenna connectors.
- What's underneath the heat-shrink? A ferrite bead to minimize interference.

Step 8



- Testing out the light pipe with an LED throwie...
- The light pipe takes light from tiny surface-mount LEDS on the motherboard and refracts it to the panel.
- Here are all the LEDS:
 - 8 of the LEDS that work with the light pipe
 - One more surface mount LED
 - A white LED for illuminating the Qwest logo
 - A dual-color (red/green) LED for the WPS status indicator.

Step 9



- The empty shell that once held a DSL modem.
- The 2 detachable Wi-Fi antennas. Nothing to tear down here!

Step 10

A black rectangular box with a thin white border. Inside, the text "Repairability Score:" is at the top in a light blue, glowing, sans-serif font. Below it, the score "8/10" is displayed in a much larger, bold, light blue, glowing, sans-serif font.

- Repairability score: 8/10
- The entire device is held together with only 4 screws.
- The Wi-Fi antenna connectors are screwed in and the cables are not soldered to the board.
- The antennas are replaceable as well.
- The heat sink is soldered in place, making removal difficult.
- The Wi-Fi card is soldered in and held in place with silicon adhesive, making it impossible to remove without damaging the card or the device.

To reassemble your device, follow these instructions in reverse order.

This document was last generated on 2017-06-18 11:15:46 AM.